

10/522589

Rec'd PCT/PTO 26 JAN 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 October 2004 (21.10.2004)

PCT

(10) International Publication Number
WO 2004/089501 A3

(51) International Patent Classification⁷: B01D 15/00,
B01J 21/08, C02F 1/28, 1/72

(21) International Application Number:
PCT/US2004/006597

(22) International Filing Date: 5 March 2004 (05.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/452,572 6 March 2003 (06.03.2003) US

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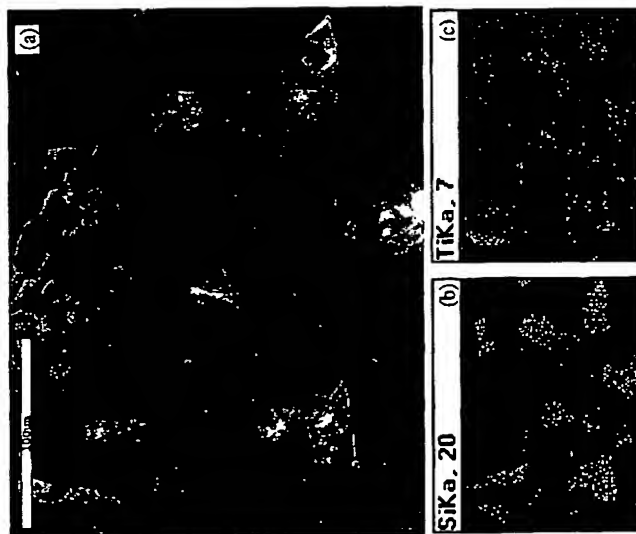
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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: METHOD AND A COMPOSITE FOR MERCURY CAPTURE FROM FLUID STREAMS



(57) Abstract: A method for removing mercury from a fluid stream includes the steps of providing a porous composite material comprising a substrate and a plurality of catalyst and/or photocatalyst particles, and contacting substrate with a fluid stream. The porous composite material adsorbs and/or then oxidizes or reduces metallic species including elemental mercury. A fossil fuel fired power plant can include an emission control device comprising the porous composite material to filter flue gas to and thereby minimize mercury emissions into the environment.

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WO 2004/089501 A3



GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
6 January 2005

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/06597

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : B01D 15/00; B01J 21/08; C02F 1/28, 1/72 US CL : 210/670, 679, 688, 748, 763, 914; 502/242, 250 According to International Patent Classification (IPC) or to both national classification and IPC																				
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 210/670, 679, 688, 721, 748, 763, 914; 502/239, 242, 250 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)																				
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X --- Y</td> <td>US 4,946,596 A (FURUTA et al.) 07 August 1990, entire document.</td> <td>1-3, 8 and 9 ----- 4, 5 and 11-14</td> </tr> <tr> <td>X --- Y</td> <td>US 4,786,483 A (AUDEH) 22 November 1988, col. 1, lines 51 and 54.</td> <td>15, 22 and 24 ----- 23</td> </tr> <tr> <td>X --- Y</td> <td>US 3,925,247 A (OGURA et al.) 09 December 1975, col. 2, lines 53, 54, 62 and 63.</td> <td>15-17 and 24 ----- 23</td> </tr> <tr> <td>Y</td> <td>US 6,013,187 A (BURNS et al.) 11 January 2000, entire document.</td> <td>4, 5, 20 and 21</td> </tr> <tr> <td>A, P</td> <td>US 6,632,771 B1 (MAEKAWA et al.) 14 October 2003, entire document.</td> <td>10 and 19</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X --- Y	US 4,946,596 A (FURUTA et al.) 07 August 1990, entire document.	1-3, 8 and 9 ----- 4, 5 and 11-14	X --- Y	US 4,786,483 A (AUDEH) 22 November 1988, col. 1, lines 51 and 54.	15, 22 and 24 ----- 23	X --- Y	US 3,925,247 A (OGURA et al.) 09 December 1975, col. 2, lines 53, 54, 62 and 63.	15-17 and 24 ----- 23	Y	US 6,013,187 A (BURNS et al.) 11 January 2000, entire document.	4, 5, 20 and 21	A, P	US 6,632,771 B1 (MAEKAWA et al.) 14 October 2003, entire document.	10 and 19
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Date of the actual completion of the international search 18 October 2004 (18.10.2004)		Date of mailing of the international search report 27 OCT 2004																		
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer Ivars C. Cintins <i>[Signature]</i> Telephone No. (703) 308-0661																		